



**PERMIT FOR A SOLID WASTE MANAGEMENT FACILITY**  
**NORTH DAKOTA DEPARTMENT OF HEALTH — DIVISION OF WASTE MANAGEMENT**  
**TELEPHONE: 701-328-5166 • REV. 05/07**

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Pursuant to Chapter 23-29 of the North Dakota Century Code (NDCC), (Solid Waste Management and Land Protection Act), and Article 33-20 of the North Dakota Administrative Code (NDAC), (Solid Waste Management Rules), and in reliance on statements and representations heretofore made by the owner or owner's representative designated below, a permit is hereby issued authorizing such owner/operator to construct and operate a solid waste management facility at the designated location under any and all conditions.

**A. Owner/Operator:**

1. **Name:** Petrocomp, a Division of D&M Water, Inc.
2. **Mailing Address:** PO Box 848, Baker, MT 59313
3. **Location Address:**

**B. Permit Number:** 0357

**C. Solid Waste Management Units:**

1. Treatment piles for composting oil field waste
2. Special Waste Landfill
3. Surface Impoundment for runoff from the piles and any leachate or contact water from the landfill

**D. Location:**

1. **General:** A portion of **Sec 8, TWP 130N, R 106W** of Bowman County
2. **Permit Area:** See Site Layout Plans 3 and 4 dated February 2009, ATEC Eng. Corp.
3. **Specific Site/Location Condition:** Erosion-prone or unstable areas including, but not limited to, areas of sparse or poor vegetation, rolling-to-steep slopes, shallow soils, inadequate Suitable Plant Growth Material (topsoil and subsoil), and/or acid-forming soil materials such as areas of Dilts Soils, Lisam Soils and/or shale outcrop areas are not suited for development for solid waste facilities pursuant to NDAC 33-20-04.1-01. Facility operations, construction, material stockpiles, equipment operations, and ancillary activities shall avoid disturbance of these areas unless appropriate plans, surveys and reclamation details are prepared by a Professional Soil Classifier, native plant specialist, and erosion control specialist and approved by the Department via a modification of the permit. The plans must adequately demonstrate the areas to be developed, disturbed or impacted can be used, maintained, monitored, closed, and reclaimed in a manner that ensures they will be effectively revegetated, stable and meet

or exceed erosion and revegetation limits of NDAC 33-20-04.1-09. Such areas outside of the approved plans are not suited for use, storage, soil borrow activities, or solid waste activities unless formal plans are approved as a major modification of this permit subject to Chapter 33-20-02.1 NDAC.

4. The edge of any disposal cell or unit, other than the final cover, shall be at least seventy-five (75) feet away from any drainage way, ravine, steep area or the edge of the Oburn soil unit to ensure that it is located in an erosion-resistant area and is surrounded by erosion-resistant materials. Additional erosion control measures may be required as directed by the Department to address problem erosion areas or as observed as necessary by the owner. The areas proposed to be developed or used for any landfill unit shall be staked prior to development and submission of the plans so that the Department can ascertain the location of the disposal unit and related structures in relation to the erosion-resistant buffer area. Prior to any construction, the owner/operator shall submit more detailed site development plans for the landfill detailing the construction of the landfill for review and approval. The plans may include some changes to the landfill location, shape, depth and design to improve erosion protection and facility efficiency, so long as it is in the general area depicted in the March 6, 2009 application and plans. The plans must receive written approval by the Department to be included as part of this permit prior to commencement of construction of the landfill.

**E. General Conditions:**

- E.1. The owner/operator of the facility is subject to the Solid Waste Management and Land Protection Act (Chapter 23-29 NDCC), the Solid Waste Management Rules (Article 33-20 NDAC), all other North Dakota and federal laws, rules or regulations and orders now or hereafter effected by the North Dakota Department of Health (hereinafter the Department), and to any and all conditions of this permit.
- E.2. Compliance with terms of this permit does not constitute a defense to any order issued or any action brought under NDCC 23-29, NDAC 33-20, NDCC 23-20.3, NDAC 33-24, Sections 3013, 7003, or 3008(a) of RCRA, Sections 106(a), 104 or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et. seq.) or any other law providing for protection of public health or the environment.
- E.3. Issuance of this permit does not convey property rights of any sort or any exclusive privilege, nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations.
- E.4. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

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- E.5.** This permit is based on the premise that the information submitted by the owner/operator is accurate and that the facility will be or has been constructed and will be operated as specified in the application and all related documents. Any inaccuracies or misrepresentations found in the application may be grounds for the termination or modification of this permit. The Permittee must inform the Department of any deviation from, or changes in, the information in the application which would affect the Permittee's ability to comply with the applicable rules or permit conditions.
- E.6.** The Permittee shall at all times properly operate and maintain the facility and systems of disposal, storage, and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this permit.
- E.7.** The Permittee shall give notice to the Department of any planned physical alterations or additions to permitted waste management units. Any physical change in, or change in the method of operation of, a treatment or disposal operation shall be considered to be construction, installation or establishment of a new operation. No construction, installation or establishment of a new operation shall be commenced unless the owner/operator thereof shall file an application for, and receive, a permit to construct and operate from the Department.
- a.** The Permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
  - b.** Whenever the Permittee becomes aware that the Permittee failed to submit any relevant facts in the permit application, or submitted incorrect information in the permit application or in any report to the Department, the Permittee shall promptly submit such facts or information.
- E.8.** The owner/operator shall construct, operate, maintain, and close the waste management units and the facility according to the criteria of law and rule, conditions of this permit, and other reasonable precautions to prevent or minimize, if applicable, any environmental impacts including, but not limited to, fugitive dust emissions, objectionable odors, air toxics and gas emissions, spills, litter and contamination of surface water and groundwater.
- E.9.** The Permittee shall furnish to the Department within thirty (30) days, any relevant information which the Department may request to determine whether cause exists for modifying, reissuing or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

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- E.10.** This permit may be modified during its term through mutual agreement or by Department Order for the purpose of preventing or abating adverse impact to the environment.
- E.11.** This permit does not supersede local zoning authority or any other requirements of any political subdivision of the state.
- E.12.** Within sixty (60) days of the issuance of this permit, if not already completed, the owner/operator shall record a notarized affidavit with the County Register of Deeds. The affidavit shall specify that this facility, as noted in the legal description, is permitted to accept solid wastes for disposal. This affidavit shall specify that another affidavit must be recorded upon the facility's final closure.
- a.** Upon closure, a second affidavit shall be recorded specifying any final details regarding the types of waste disposed of at the facility, as well as any final details regarding the facility's location, construction, management, etc.
  - b.** The Department must be provided a copy of both affidavits, certified by the County Register of Deeds in which the facility is located. The copies must be forwarded to the Department within thirty (30) days of recorded dates, or if notification has already been completed, within thirty (30) days of the permit issuance date.
- E.13.** Any entity that controls the permit holder (Permittee) agrees to accept responsibility for any remedial measures, closure and postclosure care or penalties incurred by the permit holder (Permittee).
- E.14.** The owner or operator shall provide adequate funding to the Department to pay for inspection, oversight, sampling and analysis of the operation and waste materials. A fund of \$12,000.00 shall be provided to cover the cost of inspections and sampling. This amount may be adjusted annually for inflation and/or may be increased, decreased or discontinued by the Department depending on the work involved and the compliance history of the facility. The owner or operator shall provide funds within thirty (30) days of issuing the initial permit, prorated based upon time left in the state fiscal year, and the full amount by July 31 of each following year. Should adequate funds not be provided on an annual basis, the facility must discontinue operations and begin closure of the facility.

**F. Special Conditions:**

- F.1.** Unless approved in a facility waste acceptance plan in this permit, or through Departmental correspondence, the facility shall not be used for the disposal of household garbage and putrescible waste; animal carcasses; waste grain, seed, and elevator screenings; sludges, or liquids. This facility shall not be used for the disposal of unrinsed pesticide containers; lead-acid batteries; used oil; PCB waste/oils; hazardous wastes [i.e., ignitables (solvents, paints and fuels), corrosives (acids and

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alkalies), reactives, toxicity characteristic wastes, and listed wastes]; hazardous materials; manure; septic tank pumpings or infectious wastes.

- F.2. The total amount of waste accepted per year shall not exceed 20,000 cubic yards/year. The volume of waste placed or disposed in the landfill shall not exceed 10,000 cubic yards/year.**
- F.3.** Except as modified by conditions of this permit, this facility and related waste management units and structures shall be designed, constructed, operated, and closed in accordance with previous correspondence and documents contained in Departmental files pertaining to this facility and as described in the documents listed below, which are hereby incorporated by reference in this permit:
- a. December 21, 2009 report from Minnesota Valley Testing Laboratories, submitted by Dale Leivestad, Petrocomp, on December 23, 2009, showing the radionuclide content of a sample of “Centrifugal Solids” or “Sludge.”
  - b. December 8, 2009 report from Minnesota Valley Testing Laboratories received via e-mail on December 21, 2009 from Dale Leivestad, Petrocomp, showing levels of heavy metals, Benzene, Toluene, Ethyl benzene, Xylene, and Total Petroleum Hydrocarbons as Gasoline Range Organics and Diesel Range Organics.
  - c. October 9, 2009 Application Amendment from Ameritech Engineering providing two revised drawings, a commitment to conduct analysis of the solid waste material from Petrocomp’s centrifuge, a commitment to sample and analyze surface water at the site, revised third-party cost estimates for completing the compost treatment, third-party cost estimates for disposing water from the storm water detention basin, and a revised “Appendix A – Waste Composting Procedure (Revision date: October 8, 2009)” prepared by Bob Yost of A-1 Organics.
  - d. August 8, 2009 narratives prepared by Steven Ike, Ameritech Engineering Corporation.
  - e. August 6, 2009 narratives prepared by Steven Ike, Ameritech Engineering Corporation.
  - f. August 5, 2009 comments and/or suggestions from Bob Yost of A-1 Organics, on composting methodology
  - g. “Issues for Petrocomp – Little Missouri Special Review – July 30, 2009 (DRAFT), North Dakota Department of Health, Division of Waste Management (July 30, 2009 NDDH Comments).”

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- h.** Petrocomp's letter dated April 3, 2009 with attached letters from L. Max Scott, PhD, and a second letter from Bob Yost, A-1 Organics, which addresses many issues for a treatability study.
  - i.** Revised Application for a Solid Waste Management Facility Permit – North Dakota Department of Health – Division of Waste Management SFN 19269 (3-2007) and supporting documents, dated February 11, 2009 and received on March 6, 2009, from Dale Leivestad, Petrocomp, a Division of D&M Water, Inc.
  - j.** Consolidated "Review of Petrocomp, a Division of D&M Water, Inc., Application for a Solid Waste Management Facility Permit, Initial Review: January 25, 2008 and Revised Application Review: October 20, 2008."
  - k.** Review of Petrocomp, a Division of D&M Water, Inc., Application for a Solid Waste Management Facility Permit, dated January 25, 2008.
  - l.** Site and Compliance Review, Petrocomp Proposed Special Waste Landfill, dated January 17, 2008.
  - m.** Cover letter and information from the Montana Department of Environmental Quality received by the Department on October 5, 2007, regarding the noncompliance issues of the Petrocomp facility in Montana.
  - n.** Future submittals approved by the Department may supersede or supplement items listed above.
- F.4.** Upon written approval by the Department of compliance with issues addressed in this permit, this facility will be authorized for treatment and/or disposal of those special wastes identified in the permit application, Departmentally-approved facility waste acceptance plan, elsewhere in this permit, or through Departmental correspondence. This facility is further limited to EPA-exempt natural gas and crude oil exploration and production wastes. The owner/operator may submit amended plans and/or documentation on how they can manage non-exempt oily waste and maintain adequate capacity for contingency management of leachate separate from EPA-exempt materials. Upon Departmental approval of the plans and procedures, the owner/operator may accept non-exempt waste to be managed in accordance with the approved plan which shall become a part of this permit.
- F.5.** The owner/operator may not accept, treat, store or dispose waste at the facility until they receive written Departmental approval of a plan for screening Technologically Enhanced Naturally Occurring Radioactive Material (TENORM) and for providing adequate procedures, including Quality Assurance/Quality Control procedures, for screening for TENORM. Prior to acceptance at the facility, waste shall be screened for TENORM using Petrocomp's analytical screening method or other method approved by the Department or analytical results from a Departmentally-approved

analytical method. In addition, some potential waste streams must be analyzed for Lead-210.

- F.6.** The following natural gas and crude oil production and transportation wastes shall be analyzed for Naturally Occurring Radio Active Material (NORM), specifically, Ra-226 and Ra-228 concentrations and Lead-210 by a state-approved analytical procedure or screening process, prior to acceptance at this facility:
- a.** Accumulated materials, including: solids, scale, sediment, production sand, emulsion, sludges, and other tank bottoms from storage facilities, separators, heater treaters, vessels, tanks, and production impoundments that hold product or exempt waste;
  - b.** Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from tubular goods, piping, casing, filters, clean-out traps and other equipment;
  - c.** Pigging wastes from gathering lines; and
  - d.** Any waste material suspected to contain TENORM or likely to have accumulated NORM or TENORM in concentrations equal to or greater than 5 pCi/gm.

If the total laboratory-measured Ra-226 plus Ra-228 or Lead-210 activities are equal or greater than 5 pCi/gm, the waste will not be allowed for acceptance, treatment or disposal at this facility but shall be rejected. The owner/operator shall note the source, amount, generator and other identifying information of the rejected waste and shall notify the Department within five (5) days of the rejection of such material. To address background radiation, there is no adjustment made for the background of the blending material. The 5 pCi/gm requirement is for the waste stream as measured using a Department-approved analytical method and procedures.

- F.7.** Three (3) months prior to the onset of operation and every three (3) months of operation after that, Petrocomp shall take a composite representative sample of waste from their treatment/centrifuge unit and analyze it for Total Petroleum Hydrocarbons (TPH) as Diesel Range Organics (DRO) and Gasoline Range Organics (GRO), RCRA metals, Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM) for both Ra-226 plus Ra-228 and for Lead-210, Benzene, Toluene, Ethyl benzene and Xylene (BTEX), and ignitability. The Department shall be informed of the sampling protocol and schedule and shall be afforded the opportunity to observe sampling and take a split sample for replicate analysis if deemed necessary. Composite representative analysis shall also be completed if there is a significant change in the process or waste source and for waste accepted from other treatment facilities or waste sources. The waste profile information shall be used to determine mix ratios for the compost/treatment unit and incorporated into the plan of operation for the treatment (compost) unit and to help assure compliance with TENORM screening procedures. Additional parameters may be required if deemed necessary. After one (1) year, the

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sampling schedule may be reduced upon approval by the Department. At minimum, analysis of each major waste source shall be replicated at least six (6) months prior to permit expiration.

- F.8.** This permit does not authorize any waste or product centrifuging, filtering or similar processing to separate oil, water and/or solids on this site. This permit does not authorize any blending to reduce TENORM levels.
- F.9.** Should it be discovered that waste containing TENORM equal to or greater than 5 pCi/gm above the background has been delivered or accepted at the facility, the owner/operator shall immediately discontinue acceptance, treatment and/or disposal of that waste stream, shall isolate the waste material, and within one (1) working day contact the Department of the exceedance. The owner/operator shall immediately discontinue acceptance, treatment or disposal of additional waste. It may be necessary to revise financial assurance provisions, operating plans and haul material off-site to a facility approved for acceptance of such waste. Additional waste acceptance, treatment and/or disposal shall remain suspended until written Departmental approval is provided.
- F.10.** Petrocomp shall submit monthly reports to the Department. These reports shall include pictures and a summary of the past month's site construction, operation, inspections, and monitoring of the compost/treatment facility, the solid waste landfill, the surface impoundment and adjacent areas, roads, access routes, soil storage areas, etc. The report shall detail precipitation, melt water or runoff/run-on issues; storm water and erosion issues; the conditions of all berms, dikes, roads, ditches, erosion control structures, etc.; erosion control measures; any spillage and subsequent cleanup; surface water management issues; personnel training during the period; the establishment, maintenance and status of vegetation on the site, including all areas affected by site operations, including, but not limited to, disturbed and reclaimed areas; and any other information necessary to keep the Department apprised of the facility's operation and compliance with state law and rules, the approved plans and this permit. If necessary, to maintain communication, the Department reserves the right to amend and/or require more frequent reporting. The Department may also reduce the reporting requirement based on satisfactory operation. The reports shall also include a summary of all logbooks and inspections and must be sufficiently detailed to address any additional issues contained in the attached guidelines on solid waste facility report requirements (see **Attachment 1, Guideline 4A – Recordkeeping and Reporting by Owners or Operators of Solid Waste Facilities**).

For the compost/treatment unit, the reports shall include: (1) the amounts, types and analytical results of waste accepted for treatment; (2) the total amount of all waste being mixed, treated, piled, stockpiled or otherwise placed within the compost/treatment area; (3) an assessment of the amounts, characteristics and location of any cured waste stockpiles; (4) a summary of the compost operation including, but not limited to, mixing, turning, testing, amendment, moisture levels, water addition, and temperature; (5) the progress, status and effectiveness of waste treatment measures; (6) waste addition and removal; (7) Technically Enhanced Naturally Occurring Radioactive



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Material (TENORM) levels and mixing results for each compost row, staging area and storage area; and (8) the condition of the treatment areas. Information shall be sufficient to describe the condition of each windrow and/or pile on the site.

For the landfill unit, the reports shall also include a summary of the disposal operation including, but not limited to: (1) the size of the operational area, partial sequential closure of portions of the landfill and any areas having interim and final cover; (2) the cell construction and testing of liners, final cover and associated features of the approved plans; (3) placement of cover soils, subsoil and topsoil SPGM; (4) erosion controls, cover crop, seeding, condition and status of native vegetation on closed and/or reclaimed areas; (5) the amounts, types and analytical results of waste accepted for disposal; (6) waste placement, compaction and covering; (7) any leachate generation and management; and (8) all other information needed to ensure compliance with state law and rules, the approved plans and this permit.

For the surface impoundment, the reports shall include a summary of the pond operation including, but not limited to: (1) the amount of water contained in the unit, the amount of freeboard, the amount of water removed and what it was used for or where it was disposed, etc.; (2) a description of significant storm water or leachate generation and management issues or events; (3) the condition of the dam, the berms, dikes, slopes, etc., for vegetative growth, significant erosion, cracking, etc., and a description of any repairs or modifications; (4) establishment, maintenance or repair of erosion controls, cover crop, seeding, condition and status of native vegetation on dikes, berms and dams; (5) results of water quality analysis and observations; (6) results of routine (at least monthly and after significant rainfall events) inspections for deep-rooted weeds or woody plants, seepage, deterioration, malfunctions, improper operation of control systems, sudden drops in the level of the impoundments contents, and severe erosion, seepage or other signs of deterioration in the liner, dikes or other containment devices; and (7) the pond construction, testing of liners, erosion control features, and associated issues of the approved plans and operation.

- F.11.** Financial assurance provisions must be provided to ensure adequate resources are available to close, remediate, reclaim and maintain all solid waste units as needed. Financial assurance provisions shall be updated as specified in this permit, as needed during the lifetime of the facility and at least annually to account for adequate treatment and disposal of the total volume of any and all waste and leachate on the property. Financial assurance provisions shall be in conformance with NDAC Chapter 33-20-14 and this permit.

For all solid waste units, the owner/operator shall prepare separate written closure and postclosure estimates of the costs of hiring a third party to complete identified activities of the facility closure and postclosure plans. The initial cost estimates must be in current dollars, and cost estimates must be adjusted annually for inflation. The cost estimate for closure must equal the cost of closing the largest area or the greatest amount of material to be treated during the active life of the facility. The owner or operator must increase the cost estimates if changes in the closure plan or postclosure

plan increase the maximum costs of closure or postclosure care, respectively. The owner or operator may reduce a cost estimate for closure if it exceeds the maximum costs of closure during the remaining life of the facility or a cost estimate for postclosure care if it exceeds the maximum costs of postclosure during the remaining postclosure period. The cost estimate for postclosure must account for the total costs of postclosure care over the entire postclosure period, including the most expensive costs of postclosure during the postclosure period. The owner/ operator shall prepare a new closure or postclosure cost estimate whenever there are changes in operating plans or facility design that affect the closure or postclosure plans; there is a change in the expected year of closure; and the Department directs the owner or operator to revise the closure or postclosure plan.

- F.12.** Prior to the onset of construction, all staff shall receive training on the facility plans, plan of operations, the permit, emergency/contingency procedures, state rules, erosion control, storm water management, composting, landfill operation, radioactive waste issues, safety, etc. All employees shall also be provided a copy of this permit, and replacement copies shall be readily available at the work site. A copy of the permit shall be posted in the work area. The plans and state rules shall also be readily available. The training shall be replicated for any new staff members and contractors, and repeated for all staff on at least an annual basis. The owner/operator must ensure all employees are properly trained in facility procedures, and documentation of the training shall be included in the facility record and in the routine reports to the Department.
- F.13.** Prior to facility operation, the owner/operator shall coordinate pertinent issues with local emergency, firefighting, ambulance officials, etc., and update the emergency/contingency plan if needed. A copy of any updated plan shall be provided to the Department along with a statement that is signed by the local officials stating they are aware of the facility and are satisfied with the emergency/contingency plan. Updating of these procedures shall be considered as needed, at least on an annual basis and whenever there is a significant change in the facility that may affect the emergency/contingency plans and procedures.
- F.14.** Waste shall not be stored, stockpiled or placed anywhere on the facility other than in the treatment/compost unit or in the landfill as identified in the approved plans.
- F.15.** Prior to the onset of construction, the owner/operator shall obtain Departmental approval of a workplan detailing the sampling and analysis of surface water from area creeks, drainage ways, dugouts, wetlands, dams, the Little Missouri River and other surface water features in the proximity of the site. Unless otherwise approved by the Department, the representative samples shall be obtained prior to the onset of facility construction and prior to May 15, to help establish background water quality in the area. The results of the surface water sampling shall be submitted prior to the onset of waste acceptance. This characterization shall be considered as general background conditions. If adequate water is not available for sampling in any significant features, the

characterization shall be completed as soon as practicable. This water characterization shall be replicated if there is a significant release during the operation of the facility.

- F.16.** The owner/operator shall coordinate location of compliance wells for landfill and land treatment area. A workplan shall be submitted for Departmental review and approval following the procedures outlined in NDDH Guideline 3—Hydrogeologic Investigations, Groundwater Monitoring Networks, and Groundwater Sampling for Solid Waste Management Facilities (see Attachment 2).
- F.17.** SPGM topsoil and subsoil shall be carefully removed, stockpiled and vegetated. Soil monuments shall be provided to help inspectors monitor SPGM removal. Stockpiled soil materials and disturbed areas shall be promptly mulched and planted to a cover crop and planted to the approved native grass mixture if they will not be disturbed for more than a year. If vegetation does not become established, is damaged or if significant erosion problems arise, prompt corrective action must be taken to ensure adequate controls and vegetation.
- F.18.** Within four (4) months of the permit issuance date and prior to the onset of excavation and construction, the owner/operator shall provide a plan on how it will identify, acquire, segregate, maintain and/or develop adequate topsoil SPGM and subsoil SPGM (plant root zone soil) for use in sequential final closure of the site, establishment of vegetation on disturbed areas, and reclamation of the site. The plan must provide adequate oversight by a Professional Soil Classifier and coordination between the Professional Soil Classifier and construction engineers, equipment operators and landfill staff to ensure optimal amounts of SPGM materials are segregated and ensure proper management and use of SPGM materials for site development and sequential closure. The plan shall address, as appropriate, the issues discussed in the guideline entitled, “Soil Surveys and Management of Suitable Plant Growth Material and Plant Rooting Soil for North Dakota Solid Waste Facilities” (see Attachment 3). Issues regarding topsoil SPGM and subsoil SPGM segregation and management, procedures for providing adequate soil amendments and the owner’s/operator’s progress in providing adequate materials shall be included in the regular facility reports to the Department. A Professional Soil Classifier shall also be used to evaluate placement and quality of subsoil and topsoil SPGM for revegetation of closed areas of the facility. Progress on this permit requirement shall be included in the facility’s regular reports.
- F.19.** Noxious weeds shall be controlled on a regular basis, at least twice during the growing season. In addition, fertilizer shall not be used in the establishment of early grass growth so as to minimize the promotion of weed growth.
- F.20.** Any borrow areas used for landfill cover or final cover, other than those identified in the application, shall be adequately characterized and identified in a plan provided to the Department for approval prior to any disturbance.
- F.21.** Prior to construction, the owner/operator shall meet with the Department to coordinate the plans and recommendations on vegetation standards, cover crop plantings, erosion

control and native grass plantings included in the application, this permit and Departmental guidance.

- F.22.** The facility construction and operation activities, including plans and operations for stockpiling soil, SPGM, cover and gravelly soils as well as for stabilizing exposed dikes, berms and all disturbed areas shall include appropriate erosion controls, mulch, vegetative cover, weed control, storm water controls, etc., to minimize off-site impacts.
- F.23.** Inspection of erosion control measures and storm water structures, practices, measures, silt fences and revegetated areas shall be performed and documented in writing after each rainfall event and/or every week when erosion may reasonably be expected to occur. The inspections shall include, but not be limited to, all disturbed areas subject to erosion, areas with routine or interim cover and the final cover on closed solid waste management units.
- F.24.** The facility SWPP shall be reviewed annually for any appropriate updates or changes which shall be provided to both the Department's Divisions of Water Quality and Waste Management for approval. In addition to the issues discussed above and in Departmental guidance and rules, the plan should describe how maintenance of the sediment basin will be accomplished without causing damage to the basin and the inspection and maintenance frequency of selected erosion and sediment control measures (i.e., filter fabric fences, etc.) used on-site.

**G. Conditions for Compost Treatment Unit:**

- G. 1.** Compost piles shall be limited to a working height of five (5) feet after initial mixing. After one (1) year of satisfactory operation, the Department may approve allowing piles to a height of up to seven (7) feet if the compost turning equipment can clearly handle it, the compost closure plan and financial assurance provisions for compost facility treatment, cleanup and closure are adjusted accordingly, and the facility is being operated in accordance with the approved plans, the permit and the state rules.
- G.2.** The revised "Appendix A – Waste Composting Procedure (Revision Date: October 8, 2009)," prepared by Bob Yost of A-1 Organics, shall be implemented subject to modifications required under this permit.
- G.3.** The compost/treatment unit may contain up to 11,445 cubic yards of mixed material for treatment, mixing and/or storage until disposal. After mixing or blending, composting waste in the windrows shall not exceed 50,000 ppm or 5% hydrocarbons to ensure orderly, efficient treatment. After one (1) year of successful and compliant operation, Petrocomp may propose a study to assess alternative treatment levels and methods.
- G.4.** All waste accepted in the treatment area shall be promptly mixed with bulking material as described in the amended compost plan dated October 8, 2009 by Bob Yost of A-1 Organics. Treated waste that is at or below 10,000 ppm Diesel Range Organics (DRO), 100 ppm Gasoline Range organics (GRO), and below 5 pCi/gm Ra-226 plus Ra-228

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and below 5 pCi/gm Lead-210 may be reused for the nutrient and organic fraction or may be stockpiled in a designated area for up to one (1) year to allow construction of a landfill disposal cell.

- G.5.** Prior to the onset of operations, the owner/operator shall obtain Departmental approval of an updated plan detailing waste mixing and storage procedures, identifying waste receipt/mixing areas and treated waste storage areas. Upon Departmental approval, this plan shall be implemented.
- G.6.** Every effort shall be made to maintain access to all areas of the facility. If at any time the compost/treatment area is not accessible due to muddy roads, muddy treatment pads, snow or other impediments, acceptance of additional waste shall be discontinued until access is restored.
- G.7.** Prior to the onset of facility construction, the owner/operator shall revise the third-party closure cost estimates to address more conservative costs for treatment of oily waste material. For example, one might consider estimates based on the assumption of managing up to 100% (11,444 cubic yards) of the on-site material at a level of 20% treatment. The estimates shall also provide reasonable contingencies for material amendment, testing, and any other pertinent issues for operation and closure of the unit. The financial assurance provisions must be adequate to ensure adequate resources for a third party to conduct treatment to approved levels. If treated waste accumulations exceed 11,444 cubic yards and/or if significant amounts of waste material are less than a level of 20% treatment, waste acceptance shall be immediately discontinued. The Department shall be notified of such issues within one (1) working day of discovery. Financial assurance provisions and other plans and procedures may need to be revised and/or modified. Acceptance of additional waste shall not commence without written Department approval.
- G.8.** Waste treatment shall be substantially performed in accordance with the Compost Treatment Facility Plan of Operation subject to any changes specified in this permit. Any significant departure from the composting plan must be promptly reported to the Department. Acceptance of waste shall not occur until the owner/operator has established a grid and sign system for the compost treatment unit to help provide for orderly operation, recordkeeping and compliance monitoring. An approximate mix ratio shall be provided to help operators and Departmental staff become familiar with the process. The Department may require changes or modification of the process or suspension of waste acceptance if composting does not appear to be orderly or effective. One or more trial periods of phased operation may be specified by the Department. The volume of mixed compost or mixed waste being treated shall not exceed 11,445 cubic yards as identified in the third-party closure cost estimate. Roadways, access areas and the compost pad shall be maintained in good condition to ensure orderly compost operation. Maximum TPH level in piles after mixing straw, hay and other organic materials shall not exceed 50,000 ppm total TPH as DRO and GRO. The goal shall be to reduce oil field waste levels to TPH levels of less than 10,000 ppm DRO and 100 ppm GRO. Should operation of the compost area reach capacity or should access

areas, roads, and the compost pad not be adequately maintained, waste acceptance shall be discontinued.

**H. Conditions for Surface Impoundment Unit:**

- H.1.** The surface impoundment is limited to water or leachate from solid waste units that handle only EPA-exempt oil field exploration and production waste. Water or leachate derived from non-exempt waste streams is not approved without Departmental authorization.
- H.2.** The surface impoundment shall be maintained and inspected to ensure orderly operation and ensure adequate storage capacity. After significant runoff events, prior to winter freeze up, and/or in anticipation of a period of heavy precipitation, the pond's capacity shall be restored as soon as practicable to ensure at least 25-year, 24-hour storm water management capacity.
- H.3.** The owner/operator shall obtain and analyze a representative sample of water or leachate contained in any surface impoundment and/or other accumulation area at the same frequency and for the same parameters as the groundwater monitoring program. The analytical results shall be submitted to the Department with the groundwater monitoring report.

**I. Special Waste (Oil Field) Landfill Conditions:**

- I.1.** Waste placed or disposed in the landfill shall be less than 5 pCi/gm Ra-226 plus Ra-228 above background and less than 5 pCi/gm Lead-210 above background at the landfill. Analysis of waste for the landfill disposal shall be in accordance with a Department-approved sampling and analysis plan using an approved analytical method. Prior to the onset of facility operations, the owner/operator shall provide the Department with site characterization information to establish background conditions, subject to Departmental approval. These mutually agreed background conditions shall be incorporated as part of this permit and shall be enforceable.
- I.2.** For final cover, an erosion control, revegetation and cover implementation and inspection plan will be developed in cooperation with plant, soils, and erosion professionals. The plan shall address the issues described in the Department's guideline "Evaluating Final Vegetative Cover of Closed Landfill Areas" (see Attachment 4). The Department reserves the right to require modifications to the operational and closure plans if erosion is not controlled and/or exceeds standards allowed by the North Dakota Solid Waste Management Rules.
- I.3.** Sequential closure shall be implemented in as timely manner as practicable. The working area for disposal shall be limited to as small an area as practicable. In the spring and fall, or more often as needed, for areas that are not formally closed and/or revegetated and that will not be used for disposal within the next four (4) months of operation, the owner/operator shall implement erosion control measures and plant a

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cover crop. Areas that have been planted shall be inspected to ensure the erosion control and vegetation measures are effective.

- I.4.** The volume of waste placed or disposed in the landfill shall not exceed 10,000 cubic yards/year. Disposed waste shall not exceed a concentration 10,000 ppm TPH as measured using the Diesel Range Organics Method 8015B and 100 ppm TPH as measured using the Gasoline Range Organics Method 8015B.

In consideration of information provided regarding the facility and its operation and in consideration of the conditions above, the North Dakota Department of Health hereby issues a permit to Petrocomp, a Division of D&M Water, Inc.

This permit is effective as of June 9, 2010 and shall remain in effect until June 9, 2013, unless modified superseded or revoked under Section 33-20-02.1-06 NDAC or continued in accordance with Section 33-20-02.1-07 NDAC.

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Scott A. Radig, P.E., Director  
Division of Waste Management

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Date